

AMENDMENTS TO THE CLAIMS

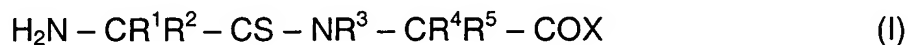
This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (original) A compound comprising a thiopeptide, or derivative or analogue thereof, the thiopeptide comprising a C-terminal carboxylic acid group, and a functional group for attachment to a drug, characterised in that the compound is adapted to carry or transport a drug.
2. (original) A compound according to claim 1, wherein the compound is adapted to, or is capable of carrying or transporting a drug, preferably *in vivo*.
3. (currently amended) A compound according to ~~either claim 1 or claim 2~~, wherein the compound is adapted to be transported by a PepT1 protein or a PepT2 protein.
4. (currently amended) A compound according to ~~any preceding claim 1~~, wherein the thiopeptide comprises at least two amino acids or derivatives or analogues thereof.
5. (currently amended) A compound according to ~~any preceding claim 1~~, wherein the compound comprises a thiodipeptide or a thiotripeptide or derivatives or analogues thereof.

6. (currently amended) A compound according to ~~any preceding claim 1~~, wherein the compound comprises a serine, aspartate or glutamate residue as a C-terminal residue.

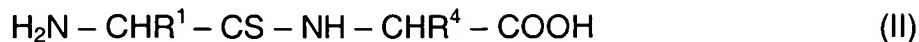
7. (currently amended) A compound according to ~~any preceding claim 1~~, wherein the thiopeptide comprises at least one thio group, which thio group is attached at, or towards, an N-terminal thereof.

8. (original) A compound according to ~~any preceding claim 1~~, the compound has formula I:-



wherein R^1 , R^2 , R^3 , R^4 , and R^5 are independently selected from a group consisting of a hydrogen; a linear or branched alkyl group; a dialkyl group; a N-alkyl group; and a side chain group of an amino acid residue; and wherein X is independently selected from a hydroxyl group; an amino acid residue; an amide; an amide link to a third residue; a peptide; and a thiopeptide.

9. (currently amended) A compound according to ~~any one of claims 1 to 7~~ claim 1, wherein the compound has formula II:-



wherein R^1 , and R^4 are independently selected from a group consisting of a hydrogen; a linear or branched alkyl group; an alkyl chain attached to other functional groups; and a side chain group of an amino acid residue.

10. (original) A compound according to claim 9, wherein the functional group includes amine; amide; ester; acid; alcohol; ether; thiol; thioether; and aryl, or aromatic compound.

11. (currently amended) A compound according to ~~any one of claims 8 to claim 10~~ claim 8, wherein R^4 is adapted to be attached to a drug molecule.

12. (currently amended) A compound according to ~~any one of claims 8 to 11~~ claim 8, wherein R^4 comprises an alcohol or a carboxylic acid group.

13. (currently amended) A compound according to ~~any one of claims 8 to 12~~ claim 8, wherein R^4 comprises an alkyl chain attached to an alcohol or a carboxylic acid group.

14. (original) A compound according to any one of claims 13, wherein the alkyl group or alkyl chain comprises a C_1 - C_{20} chain.

15. (currently amended) A compound according to ~~any one of claims 8 to 14~~ claim 8, wherein R⁴ is an amino acid side chain group comprising an alcohol or a carboxylic acid group.

16. (currently amended) A compound according to ~~any one of claims 8 to 15~~ claim 8, wherein R⁴ is a side chain group of any amino acid residue.

17. (currently amended) A compound according to ~~any one of claims 8 to 16~~ claim 8, wherein R⁴ is a side chain group of an amino acid side chain group independently selected from a group consisting of serine; threonine; glutamic acid; aspartic acid; and tyrosine.

18. (currently amended) A compound according to ~~any one of claims 8 to 15~~ claim 8, wherein R⁴ is a side chain group of serine; glutamic acid; or aspartic acid.

19. (currently amended) A compound according to ~~any one of claims 8 to 15~~ claim 8, wherein R⁴ comprising spacing means, which spacing means is adapted to distance the drug away from the thiopeptide when bound thereto.

20. (original) A compound according to claim 19, wherein the spacing means comprises an alkyl chain, or an alkyl chain incorporating ether, amino, ester, amide or carbonyl

groups, with appropriate functionalisation at it's termini for attachment to the thiopeptide compound and the drug molecule.

21. (currently amended) A compound according to ~~either claim 19 or claim 20~~, wherein the spacing means comprises $[-CH_2-]_n$, wherein the value of n is an integer of at least 1.

22. (currently amended) A compound according to ~~either claim 19 or claim 20~~, wherein the spacing means comprises $[-CH_2-O-CH_2-]_n$, wherein n is an integer of at least one.

23. (currently amended) A compound according to ~~any one of claims 8 to 22~~ claim 8, wherein R^1 comprises a side chain group of any amino acid residue.

24. (original) A compound according to claim 23, wherein the amino acid side chain group of R^1 is independently selected from a group consisting of (i) H (glycine); (ii) Me (alanine); (iii) CH_2Ph (phenylalanine); (iv) $CHMe_2$ (valine); (v) CH_2OH (serine); (vi) CH_2SH (cysteine); (vii) CH_2CO_2H (aspartate); (viii) CH_2CONH_2 (asparagine); and (ix) $(CH_2)_4NH_2$ (lysine).

25. (currently amended) A compound according to ~~any preceding claim 1~~, wherein a functional group to which a drug is attached is protected by a protection group.

26. (original) A drug carrier comprising a thiopeptide, or derivative or analogue thereof.

27. (currently amended) A drug carrier according to claim 26, wherein the thiopeptide, or derivative or analogue thereof comprises the thiopeptide, or derivative or analogue thereof according to ~~any of claims 1 to 25~~ claim 1.

28. (currently amended) A drug conjugate comprising a drug, which drug is linked to a compound according to ~~any of claims 1 to 25~~ claim 1, or a drug carrier ~~according to either claim 26 or claim 27~~.

29. (original) A drug conjugate according to claim 28, wherein attachment of the drug to the compound or drug carrier is by means of an ester linkage, ether linkage or an amide linkage.

30. (currently amended) A drug conjugate according to ~~either claim 28 or claim 29~~, wherein attachment of the drug occurs at residue 1 or 2 of the compound or drug carrier.

31. (currently amended) A drug conjugate according to ~~any of claims 28 to 30~~ claim 28, wherein the compound or the drug carrier is capable of being released or detached from the drug molecule.

32. (currently amended) A drug conjugate according to ~~any of claims 28 to 31~~ claim 28,
for use as a medicament.

33. (currently amended) Use of the conjugate according to ~~any of claims 28 to 31~~ claim 28 for the preparation of an orally administrable medicament.

34. (currently amended) An assay adapted to detect transportation of a conjugate
according to ~~any of claims 28 to 32~~ claim 28 from a first side of a membrane to a
second side of a membrane, the assay comprising detection means adapted to detect
the presence of the conjugate on first and second sides of the membrane.

35. (original) An assay according to claim 34, wherein the detection means is adapted
to detect UV absorption of the thiopeptide.

36. (currently amended) A method of treating an individual, the method comprising
administering to an individual in need of such treatment a conjugate according to ~~any of~~
~~claims 28 to 32~~ claim 28.

37. (currently amended) A method of treating an individual according to claim 36,
wherein the drug conjugate comprises a drug molecule attached to a compound
~~according to any of claims 1 to 25 or a drug carrier according to either claim 26 or 27.~~

38. (original) A compound or drug carrier substantially as herein described with reference to, or as illustrated by, the figures.

39. (original) A method substantially as herein described with reference to, or as illustrated by, the figures.